

ZANZIBAR PROTECTORATE



ANNUAL REPORT
ON THE
DEPARTMENT OF AGRICULTURE

for the year ended 31st December, 1940

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SECTION I.

AGRICULTURE IN THE PROTECTORATE.

GENERAL.

To obtain a clear view of the general agricultural and economic background of the Protectorate it is essential to appreciate that the greater part of the first-class land is planted with cloves and coconuts, which provide the bulk of the purchasing power of the people. In addition to contributing indirectly towards the revenue of Government, the clove crop makes a direct contribution by way of an excise duty, which was at the rate of Shs. 11 per 100 lbs., or £12-6-0 per ton, during the year. There is no export tax or duty on copra which, in normal times, provides, from the regular quarterly harvest, the current finance of the people, especially in the Zanzibar District.

With the collapse of France and the entry of Italy into the war, the two principal markets for Zanzibar copra became closed, and more than ever the prosperity of the Protectorate became bound up with the export of cloves. While it is true that many of the tree crops which are cultivated in other low-lying parts of the tropics can be grown successfully in these islands, it is virtually impossible to find one so high priced as the clove. That is to say, no single alternative tree crop can readily be found which will maintain the standard of living and social services at the level which has been made possible by the cultivation of the clove tree.

It is apparent, therefore, that if existing social standards are to be maintained and improved the question of alternative cash crops for which here, as in other parts of the Colonial Empire, there is a request, must be based on a recognition that these are subsidiary to the clove and not substitutes for it. At this stage it is as well to point out that for many years clove planting has increased in Pemba where suitable areas have been planted up slowly with this crop. This is not the case in Zanzibar, where the majority of clove trees are of the same age class (between 60 and 70 years) and where large areas are reaching the end of their economic life at the same time and trees dying off as a result of "sudden death".

During recent years Zanzibar District has produced about one-third of the crop of cloves grown in the Protectorate, but this proportion is tending to be reduced as over-mature trees die off. The total production is, however, maintained from the increasing crops of Pemba where, as previously stated, there is a better distribution of age classes in the clove plantations. Of the average copra export of some 12,500 tons, Zanzibar produces two-thirds and Pemba one-third, so that the economic deterioration caused by the drop in the price of oil seeds has had a ~~non~~-adverse effect on Zanzibar than the sister island, for, in addition to reduced sales and lower prices for copra, clove production is also declining. It is apparent, therefore, that the need for alternative cash crops is greater in Zanzibar than in Pemba.

A ~~higher~~ rainfall is concentrated into about six months of the year, and there are periods between the heavy seasonal rains, when the weather is extremely dry. In the interest of soil protection it is advisable to grow tree crops to as great an extent as possible on the sloping areas of deep soil found in plantation regions. For the foregoing reasons it is probable that the best of the clove lands of Zanzibar should be replanted with cloves as the older trees pass beyond their age of economic productivity, and the marginal lands which carry indifferent cloves utilized for the cultivation of other economic crops, including, it is hoped, pineapples, which hold out promise of being acceptable, in the canned state, to the United Kingdom markets.

"SUDDEN DEATH" OF CLOVES.

Dr. A. H. Campbell, who was seconded to the Protectorate to investigate "sudden death" of clove trees, has now forwarded Part I of the report upon his local investigations. This report summarizes very fully the history of "sudden

death" investigations in Zanzibar and Madagascar, and the author has reached the conclusion that the "apoplexy" of clove trees in Madagascar and "sudden death" in Zanzibar are one and the same disease.

Dr. Campbell does not attribute "sudden death" of mature trees to pathogenic organisms. He reviews at considerable length the consideration of "sudden death" as a functional disorder, and concludes that the agencies which may be expected to disturb the functional balance of the tree are--

- (a) drought and inundation,
- (b) exceptionally heavy cropping,
- (c) mutilation of roots by irregular cultivation and of branches by picking heavy crops, and
- (d) the effect of opening the canopy on the water balance of the tree and on soil conditions.

He regards only the first three of these agencies as being concerned in the causation of sporadic "sudden death", while all are operative in the epidemic condition.

Dr. Campbell takes the view that epidemic conditions of "sudden death" tend to become more common in old plantations, where the condition is caused by the accentuation of the factors responsible for sporadic deaths, together with the breaking of the canopy in an over-mature stand of clove trees already on the threshold of extreme water strain. As a result of the canopy break, an area of soil occupied in part by the roots of the adjoining trees is exposed to the full drying power of the sun, humus is destroyed, the evaporation from the exposed soil is increased and the rise in temperature of the soil may be expected to have an adverse effect on the absorbing power of clove roots of the superficial root plate, or even to bring about the death of the roots. At the same time around the margins of the gap caused by the break in the canopy the leaf surfaces of the remaining trees are more fully exposed than before, and increased transpiration takes place while absorption of water is diminished, resulting in wilting and death on a large scale.

He concludes that, so far as mature plantations are concerned, no economically possible method of preventing "sudden death" can be devised and that the problem resolves itself, therefore, into one of regeneration.

In Part II of this report, which is awaited with interest, the measures which Dr. Campbell considers necessary for regeneration will, no doubt, be outlined.

FOOD PRODUCTION AND PRICE CONTROL.

A considerable proportion of the time of the Director has been taken up by duties arising out of the price control of essential foodstuffs, the Protectorate being to a large extent dependent upon imported foods, principally rice. The principle followed in food control has been to allow normal business channels to operate with the minimum of interference, provided that adequate stocks of essential foods are being maintained. It has been unnecessary to impose any form of rationing during the year.

A rice reserve of 2,000 tons was created immediately after the war began, and was disposed of and replaced by a further reserve during the year under review.

In view of the difficulty experienced in maintaining supplies of tinned milk after the enemy occupation of Holland, an agreement was entered into with a firm of manufacturers who guaranteed to maintain a two months' supply in the Protectorate provided they were given the sole right to import.

As a result of active propaganda by the Government, assisted by the general rise in the price of imported foodstuffs, a marked increase in the area of land under foodcrops took place during the year. This increase of such locally grown crops as cassava, rice, sweet potatoes and pulses has been responsible for a considerable reduction in the quantity of imported foods, because householders used increased quantities of these local products for some at least of their needs. There was an increase in the use made of maize and maize meal at the expense of rice.

It is of interest to record that, whereas the prices of most of the staple imported foods used by the people have increased twenty-five per cent, the prices of local produce, on account of the volume of supplies, have remained generally at pre-war levels. It is also of importance to record that, in spite of the greatly increased price of imported foodstuffs, the value of a comprehensive list of foods imported in 1940 was lower by some £40,000 than in 1939, the figures for 1939 and 1940 being £383,461 and £343,821. The most important single item accounting for the reduction was a drop of some 8,000 tons in rice imported in 1940.

CLOVES.

The clove crop of the seasonal year 1939-1940 was rather more than an average one, the total deliveries at the markets during the period being 10,461 tons, or 669,515 frasilas of 35 lbs., of which 501,474 and 168,041 frasilas were derived from Pemba and Zanzibar respectively. During the calendar year of 1940 the crop arrivals amounted to 10,129 tons, or 648,246 frasilas, drawn from Pemba and Zanzibar in the proportions of 499,537 and 148,709 respectively. On the whole, the quality of the crop was not better than fair, cloves being irregular in size and most samples showed the effects of weathering due to rain in the drying period.

In Pemba the crop was principally a "mwaka" one, beginning in July and being at its peak in September, whereas in Zanzibar a "vuli" harvest, extending from November till January, 1941, was obtained. This spread of the crop enabled picking labour to be obtained freely during the harvest periods.

In 1940 the average price paid by the Clove Growers Association to producers was Shs. 34 cents 21 per 100 lbs. of cloves, equivalent to approximately £38-6-0 per ton, compared with Shs. 34 cents 90 in 1939.

Exports of cloves at 174,269 bales, equivalent to 10,892 tons, or 697,076 frasilas, were lower than those of the previous year but greater than normal. The declared value was £729,705, which is approximately £67 per ton, or Shs. 59 cents 82 per 100 lbs., compared with Shs. 58 cents 06 in 1939. The demand was heaviest in the second half of the year, due to lack of competition from Madagascar after the collapse of France. The Dutch East Indies, India and the United States of America took 92.77 per cent of the total exports in the proportions of 57.74 per cent, 17.89 per cent and 17.14 per cent respectively. Of the total exports 90 per cent were Grade II and 10 per cent Grade III.

The export of clove stem oil was 365,640 lbs., valued at £45,599, the total declared value of cloves and clove stem oil being £775,304.

As in the past, inspection of cloves, clove stems and copra under the provisions of the Adulteration of Produce Decree took place at Pemba ports and at Zanzibar. Failures of Pemba produce upon re-examination at Zanzibar were twice as great as those in 1939, the cause of failure, in the majority of cases, being excessive moisture.

COCONUTS AND COPRA.

In the first half of the year exports of copra were satisfactory, although the price was poor. The capitulation of France and the entry of Italy into the war closed two of the normal markets of the Protectorate, and thereafter the copra trade became a hand-to-mouth business, with limited outlets in India and adjacent East African ports. The price of copra obtained from the Government Plantations averaged £6-16-0 per ton spot, or Shs. 5 cents 67 per 100 lbs., compared with Shs. 6 cents 49 in 1939. Coconut oil was more readily saleable than copra, and the production of the local mills increased to 640 tons, representing an increase of 84 per cent over the figure for 1939. The declared value of oil was £9,769, equivalent to Shs. 13 cents 52 per 100 lbs. weight. Total exports of copra were 9,249 tons, the declared value being £76,337, equivalent to £8-5-0 per ton, an increase of Shs. 13 per ton in comparison with the exports of the previous year. The export of copra, coconut oil and coconuts represented the utilization of 10,485 tons of copra, the total value of copra, oil, coconuts and oil cakes being £90,974, a drop of £850 in the declared value in comparison with 1939.

CANNED PINEAPPLES.

Following an experiment in the canning of local pineapples conducted in 1939, 200 cases of pines were processed by the Department of Agriculture and put on the United Kingdom market early in 1940. The reports on the product were satisfactory, and Government attempted to interest local enterprise, particularly the Indian community, in developing this subsidiary industry. There was no response to the effort and Government decided to entrust the Clove Growers Association, in collaboration with the Department of Agriculture, with the task of bringing pineapple canning a stage nearer to commercial production.

ZANZIBAR CHILLIES.

The Protectorate was at one period a producer of chillies, but for some years there has been no export. Trial plots were established at the Experimental Station and on Government Plantations and propaganda work conducted principally amongst peasants in an effort to encourage them to plant this crop. A grade for export was fixed, but only a small quantity was exported during the year.

DOMESTIC EXPORTS.

Item.	Unit.	Quantity.	1940.	Per cent of Total
			Declared Value. £	Value.
Cloves	Cwt.	217,836	729,705	83.25
Clove stem oil	Lbs.	388,336	48,549	5.54
Copra	Tons	9,249	76,337	8.71
Coconut oil	Lbs.	1,444,636	9,769	1.11
Coconuts	Nos.	999,950	1,799	0.20
Oil cakes	Cwt.	17,545	3,069	0.35
Fruit fresh	Cwt.	—	1,673	0.20
Vegetables	Cwt.	395	200	0.02
Tobacco unmanufactured	Lbs.	525	8	—
<i>Hides and Skins.</i>				
Ox hides	Cwt.	306	615	0.07
Sheep and goat	Nos.	9,135	366	0.04
Other animals	Nos.	500	2	—
Mangrove bark	Tons	864	3,784	0.43
Chillies	Cwt.	161	678	0.08
Total ...		—	876,554	100.00

The table of domestic exports which is reproduced shows the important position of clove exports. The small quantity of native rope tobacco which was formerly sold principally to Italian Somaliland was not marketed during the period under review.

THE WEATHER.

The total rainfall was higher than usual, the greater part falling in a short period during the main rains of March and April, which stopped abruptly. On account of the late season rains being short and badly distributed, the year was unsatisfactory one for the establishment of tree crops. During the main rains the weather was good for food growing, but disappointing during the light rains of the latter part of the year.

SECTION II.

WORK OF THE DEPARTMENT OF AGRICULTURE.

The Experimental Station at Kizimbani and the two seed stations have been of value as sources for the free supply of seeds and cuttings of grain crops, pulses, sweet potatoes and cassava. Worthy of special comment has been the popularity of the yellow fleshed potato, Caroline Lea, which has a high content of carotene.

The Department increased to a great extent the setting of eggs and the distribution of fowls of the Rhode Island Red Breed. Large numbers of cockerels were issued free.

CLOVES.

The rearing and sale of nursery stock was continued as in previous years, 56,580 seedlings were distributed in Zanzibar and 52,805 in Pemba.

A trial in the replanting of cloves on almost derelict land, from which the old clove trees had been removed as a result of sudden death or on account of old age, was brought to a close. Although the various cultural and manurial treatments ~~has~~ had no statistical effect, there is definite evidence that—

- (i) by growing cassava for one year and later replacing it by Calopogonium, the growth of Imperata grass between the young trees was greatly suppressed;
- (ii) the normal estate practice of cultivating young clove trees by giving four ring hoeings and one complete hoeing per annum is not sufficient to suppress the growth of Imperata grass and other objectionable weeds in areas where practically no overhead shade exists;
- (iii) the growth of Calopogonium was more vigorous on limed plots.

Losses of Clove Seedlings.—An examination of the records of mortality amongst clove seedlings planted in experimental areas during the years 1934 to 1939 has shown that in their first year in the field 47 per cent of all seedlings died. In the second year 7 per cent of the original seedlings died, in the third year 2 per cent died and in the fourth year 0.8 per cent died.

These figures are important, because they reveal the heavy losses of seedlings which are experienced in establishing clove plantations, and illustrate clearly that the first year in the field is the most critical period.

The best survival percentages during the first year have been obtained in sites where the young seedlings have been afforded protection from wind and sun by interplanting amongst older trees which have outlived their period of usefulness, by the provision of temporary shade from inter-planted cassava during the first year in the field, or by the provision of temporary shade of a more lasting nature from hedges of *Gliricidia*.

A comprehensive cloves establishment trial, in which various types of temporary shade, windbreaks and ground covers are employed, has been devised.

COCONUTS.

The selection of high yielding palms and the establishment of a block of palms from high yielding parent trees was continued.

THE USE OF SULPHUR DIOXIDE GAS IN THE PREPARATION OF COPRA.

The value of sulphur dioxide gas in copra preparation was tested by a series of trials in which the more common errors and shortcomings of local copra-makers were incorporated in various methods of preparation after sulphur treatment. It was hoped, in this way, to show whether the bactericidal and fungicidal properties of sulphur dioxide gas would persist long enough in the meat to resist rotting.

Results showed that the sulphur treated nuts produced slightly better copra, of slightly greater weight and market value than the untreated. This

was especially so where the nuts were removed from the shells before sulphuring. Sulphuring was of least value when the meat was subsequently exposed to rainy weather.

Sulphur treatment did not materially assist subsequent storage except in cases where drying was incomplete before storing. In this case the residual acid in the meat greatly reduced the speed of decomposition.

In general, however, the sulphuring method was disappointing. It did not produce such a high quality product in difficult circumstances as published literature had led us to expect.

Nevertheless, mature nuts, not neglected to an excessive degree, were shown to produce a slightly better product when sulphured than similarly treated nuts without the sulphuring treatment, but under the conditions of the trial no sulphured sample was as good as average kiln dried copra turned out with care from the Government Plantations.

ARTIFICIAL COLOURING OF ORANGES BY ACETYLENE GAS.

Zanzibar oranges were successfully coloured with acetylene gas using a similar technique to that used with the more usual ethylene gas in Southern Rhodesia.

A wooden gas chamber of 205 cubic feet capacity was used in which 5,000 oranges could be coloured in four days. The gas concentrations were measured by the use of a one cubic foot metal box fitted with a mercury manometer. An electric fan inside the box was used to spread the gas through the bulk of the fruit and to assist the periodic ventilations.

The experiments showed that a pleasant orange colour could only be obtained by using fruit already over 35 per cent yellow, the ideal fruit being about 50-80 per cent yellow. The fruit required to be freshly picked and carefully examined in order that all fruit blemished by bruising and insect attack could be rejected.

The most useful concentrations of acetylene gas were found to be from 1/500 to 1/1000 calculated for an empty chamber which is equivalent to 1/350—1/750 calculated for a chamber already charged with fruit. Gas was introduced three times per day with complete ventilation between gassings.

Our temperatures varied between 74° and 90° Fahrenheit, which is considerably higher than the most useful range for orange colouring experienced elsewhere. Wastage was very slight and the oranges kept well at normal temperatures after gassing.

These experiments have shown that we are now in a position to commence trial shipments to India of artificially coloured oranges when regular shipping is available. The fruit is ready for shipment, in a normal year, slightly before the Indian harvesting season opens, which is an advantage in attempting to develop an Indian trade in this commodity.

PINEAPPLES: SPACING AND MANURIAL EXPERIMENTS.

The quality of pineapples grown in Zanzibar is extremely good, and investigations have been made during the past few years with reference to the possibility of erecting and operating a fairly large canning factory in the Protectorate. In this connexion the following experiments were initiated :—

Spacing Experiment.—This experiment was started in 1938 to determine the best distances at which suckers should be planted in order to obtain the largest value of pines suitable for canning. Many of the pines grown in Zanzibar are much too large for canning purposes, but by planting at closer intervals the number of pines per acre and the average size of pines can be regulated to obtain the maximum cash returns.

The experimental plot is nearly one acre in size and is divided into eight blocks of three plots, each 60 ft. by 27 ft. The pineapples were planted on the flat at three different intervals, namely :—

Spacing A.—Three treble rows of plants with a space of 2 ft. 6 in. between plants in the row, and a space of 4 ft. between each treble row.

Spacing B.—Three quadruple rows of plants with spaces of 2 ft. between rows and between plants in the rows, and a space of 3 ft. between each quadruple row.

Spacing C.—Three quadruple rows of plants with a space of 1 ft. 6 in. between rows and between plants in the rows and a space of 4 ft. 6 in. between each quadruple row.

The normal pineapple season in Zanzibar extends from the beginning of November to the end of February and, at the present time, yield figures are available for the period of 1st November, 1939 to 31st December, 1940. These are as follows:—

	Number of Pines.	Weight of Pines lbs.	Average Weight of Pines. lbs.
Spacing A.	1,579	8,079.7	5.1
Spacing B.	2,303	10,234.2	4.4
Spacing C.	3,182	13,100.9	4.1

The average weight of the pines in Spacing "C" approximates to the minimum size of the best canning fruit and, as probably more than half the number of fruit is below the average size, it may be inferred that a very large number of these fruits would be useless for canning. Again, in the latter part of the season, fruit becomes steadily smaller as the season progresses and when the present season is complete the average weights of the pines will be slightly lower than those given above.

During 1938, 1939 and 1940 all plots have received artificial manures at the rate of 250 lbs. Sulphate of Ammonia, 250 lbs. Superphosphate and 200 lbs. Sulphate of Potash per acre in two dressings.

Manurial Experiments.—This experiment was also laid down in 1938. It consists of six blocks of eight plots each 30 ft. by 27 ft. The eight treatments may be represented as follows:—

N., K., P., N.K., N.P., P.K., N.P.K., and Control.

In these plots N., P., and K. are supplied by Sulphate of Ammonia at the rate of 250 lbs. per acre, Superphosphate 250 lbs. per acre and Sulphate of Potash 200 lbs. per acre respectively.

Treatment yields (i.e. for the period from 1st November, 1939 to 31st January, 1940) are given below:—

		Number of Pines.	Total Weight of Pines. lbs.	Average Weight of Pines. lbs.
Control	...	608	2,842.5	4.7
N.	...	764	4,059.8	5.3
K.	...	557	2,285.3	4.1
P.	...	596	2,401.0	4.0
N.K.	...	666	3,518.4	5.3
N.P.	...	697	3,759.4	5.4
P.K.	...	516	2,128.9	4.1
N.P.K.	...	658	3,407.5	5.2

As in the spacing experiment, these figures may be modified as the trial progresses by the greater proportion of smaller fruit which is likely to be reaped in the second half of the season. It is obvious, however, that applications of nitrogen increase the yield both as regards the number and the size of fruit. There is also evidence from the detailed records that plots receiving nitrogen produce a number of good fruits earlier in the season than do plots receiving no nitrogen.

The plants in plots receiving nitrogen are much darker green and healthier in appearance than the remainder, and it has been decided to double the quantities of Sulphate of Ammonia and Superphosphate beginning with the November, 1940, half-yearly application.

FOOD CROPS.

Yams.—In a 6 × 6 Latin Square variety trial reaped during the year the highest yields were from the varieties Joka, Coconut Lisbon and Kinana. Kinana possesses poor keeping qualities, and neither it nor Joka were considered very palatable by the people. A lower yielding yam, Alade, of Nigerian origin, was rated as having the best flavour of the six varieties.

GRAIN CROPS.

Maize.—White Maratha is still the highest yielding maize in the Experiment Stations and the most popular with growers. The lower carotene content compared with the yellow maizes is probably not an objection where the food is not a staple one. Funks Yellow Dent and Durum are the best of the yellow maizes yet tried. The former is the heavier yielding and succeeds slightly better than Durum on poor land.

Rice.—Twenty-two varieties were grown in observation plots, seventeen of these being of Nigerian origin and six of the Nigerian varieties being favourably reported upon for good cooking quality and flavour. Thirteen of the Nigerian varieties were two or three weeks earlier in maturing than the local varieties Cheche, Afaa and Kisukari, the Sierra Leone varieties, N.14, and N.90, and the remaining Nigerian varieties.

The local variety Cheche again produced very good yields on swampy land, but the Sierra Leone varieties, N.14 and N.90, produced much larger yields than Cheche in plots where the soil dried out soon after the *masika* rains terminated. These two varieties will be distributed to a number of known persons for trial on semi-dry areas during the next season. Cheche will still be distributed for growing in swamps.

Vegetables.—The trial of a large number of vegetables was continued, the successful cultivation of onions and Jerusalem artichokes being worthy of comment. In the case of the former some fifty tons per month are imported into the Protectorate. It is clear that some portion of this quantity can be grown locally, using Teneriffe or Bombay seed. Artichokes are of value in that they can be relied on to crop all the year round in contrast to all the other imported vegetables which have, so far, been under trial.

VETERINARY.

The most noteworthy features of the activities of the Department on the veterinary side are summarized below.

Imports of slaughter stock at 1,254 oxen and 5,931 goats and sheep were slightly below normal. Although difficulties were experienced in obtaining slaughter stock from the mainland, no real shortage of meat was experienced.

In work amongst the smaller cattle owners some progress was made and 178 cattle were castrated. This progress, although slow, is satisfactory, for much opposition to this operation was experienced and is slowly breaking down as a result of the Veterinary Officer's patience. The demand for the vaccination of fowls against fowl typhoid continued to be met, 6,778 fowls being treated.

By means of a grant from the Colonial Development Fund, a cattle dip was constructed at the Experiment Station of the Department and six heifers and two bulls of the Boran breed were purchased to form part of the foundation stock of a herd of native type cattle. The Boran cattle were supplied from the herd maintained by the Veterinary Department at Ngong, Kenya.

Apart from the diseases which are encountered regularly in the Protectorate, an outbreak of Anthrax occurred amongst dairy cattle near the town. The disease has not previously been recorded in the Protectorate, and its source was not discovered. The outbreak caused the loss of a dozen animals, but was confined to the immediate area in which it broke out. All animals in the neighbourhood, totalling 1,225, were subsequently inoculated against the disease, using a vaccine supplied by the Director of Veterinary Services, Kenya.

SECTION III.

LEGISLATIVE CHANGES AFFECTING AGRICULTURAL INDUSTRIES.

The only legislative change of importance to agriculturists and exporters which was made during the year was to bring chillies under the provisions of the Adulteration of Produce Decree (Cap. 120) and of the Agricultural Produce Export Decree (Cap. 116).

A grade of chillies known as Export Grade was fixed, the standards being noted below :—

Export Grade : Good sound chillies, known in the Protectorate as *pili pili hoho*, not exceeding one and a half inches in length which are whole, bold, well coloured and reasonably uniform in appearance and which contain not more than

9 per cent of moisture,

8 per cent of broken, immature, discoloured or otherwise defective chillies,

1 per cent extraneous matter.

J. C. MUIR.

Director of Agriculture.

Zanzibar, 17th February, 1941.

SECTION III

LEGISLATIVE AND EXECUTIVE AGENCIES

The first section of the act is devoted to the establishment of a Department of Agriculture and Commerce, which shall be composed of the Secretary of Agriculture and the Secretary of Commerce, and shall be known as the Department of Agriculture and Commerce.

The second section of the act is devoted to the establishment of a Department of Education, which shall be composed of the Secretary of Education and the Secretary of the Board of Education, and shall be known as the Department of Education.

The third section of the act is devoted to the establishment of a Department of the Interior, which shall be composed of the Secretary of the Interior and the Secretary of the Board of the Interior, and shall be known as the Department of the Interior.

The fourth section of the act is devoted to the establishment of a Department of the Navy, which shall be composed of the Secretary of the Navy and the Secretary of the Board of the Navy, and shall be known as the Department of the Navy.

The fifth section of the act is devoted to the establishment of a Department of the Army, which shall be composed of the Secretary of the Army and the Secretary of the Board of the Army, and shall be known as the Department of the Army.

The sixth section of the act is devoted to the establishment of a Department of the Air Force, which shall be composed of the Secretary of the Air Force and the Secretary of the Board of the Air Force, and shall be known as the Department of the Air Force.

The seventh section of the act is devoted to the establishment of a Department of the Coast Guard, which shall be composed of the Secretary of the Coast Guard and the Secretary of the Board of the Coast Guard, and shall be known as the Department of the Coast Guard.

The eighth section of the act is devoted to the establishment of a Department of the Marine Corps, which shall be composed of the Secretary of the Marine Corps and the Secretary of the Board of the Marine Corps, and shall be known as the Department of the Marine Corps.

The ninth section of the act is devoted to the establishment of a Department of the Navy, which shall be composed of the Secretary of the Navy and the Secretary of the Board of the Navy, and shall be known as the Department of the Navy.

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